In the Specification

Please substitute the following paragraph on page 3, beginning at line 5:

Many medications, herbal remedies and procedures have side affects that contribute to cognitive dysfunction. Because of these side effects patients may choose to discontinue medication or treatment (such as ECT) which has a detrimental effect on treatment. Currently, there are no medications approved for helping to alleviate these symptoms. The invention describes a novel treatment for individuals who experience various side effects of cognitive dysfunction. The invention additionally describes how these medications may enhance cognitive function in individuals with normal cognitive functioning who might benefit from this type of enhancement. The subject invention further provides materials and methods for the treatment, prevention, or ameliorate medication-induced cognitive dysfunction comprising the administration of medications or compositions comprising one or more selective norepinephrine reuptake inhibitors (SNRI) and/or ~~buproprion~~ bupropion.

Please substitute the following paragraph on page 3, beginning at line 18 through to page 4, line 2:

The subject invention provides materials and methods for the treatment, prevention, or ameliorate medication-induced cognitive dysfunction comprising the administration of medications or compositions comprising ~~buproprion~~ bupropion and/or one or more selective norepinephrine reuptake inhibitor (SNRI). Non-limiting examples of SNRI include reboxetine, atomoxetine, oxaprotiline, desiparamine, nisoxetine, ludiomil, and fezolamine. Compositions comprising one or more SNRI can be co-administered with the affecting medication. Likewise, compositions comprising ~~buproprion~~ bupropion and, optionally, one or more SNRI can be co-administered with an affecting composition. Reboxetine is a clinically effective antidepressant drug that does not tend to cause cognitive dysfunction, unlike selective serotonin reuptake inhibitors (Michelson D, Adler L *et al.*, 2003). Another one of these types of medications is atomoxetine (Strattera®) which is FDA approved for Attention Deficit/ Hyperactivity Disorder (ADHD). Strattera is also a clinically effective and safe treatment for ADHD (Pliszka SR ). In various aspects of the invention, the

compositions used in this method of the subject invention can exclude polypeptides and/or individual amino acids.

Please substitute the following paragraphs on page 4, beginning at line 26 through to page 6, line 9:

In addition to medication-induced cognitive dysfunction, medical procedures can also be associated with cognitive dysfunction with many individuals being at risk of perioperative cognitive dysfunction (Hirsch CH, 1995). In particular neurocognitive changes have been noted following orthopedic interventions, patients with incomplete or heavy pain control (Duggleby W, Lander J, 1994), post coronary artery bypass graft (Haddock CK, Poston WS *et al.*, 2003), following craniectomy (Ellis K, Speed J *et al.*, 1998), carotid endarterectomy procedures (Heyer EJ, Sharma R *et al.*, 2000), and electroconvulsive therapy (ECT) (Neylan TC, Canick JD, Hall SE et. al., 2001). Older patients are at particular risk of perioperative morbidity due to the limited flexibility and reserve of their body systems. Thus, the subject invention also provides methods of: 1) reducing the incidence of; 2) treating; 3) preventing; or 4) ameliorating cognitive dysfunction that is associated with, or arises from, medical procedures such as, but not limited to, surgical interventions (procedures), incomplete or heavy pain control, or electroconvulsive therapy comprising the administration of compositions comprising ~~buproprion~~ bupropion and/or one or more SNRI to an individual. Non-limiting examples of SNRI include reboxetine, atomoxetine, oxaprotiline, desiparamine, nisoxetine, ludiomil, and fezolamine. In certain aspects of the subject invention, compositions comprising ~~buproprion~~ bupropion are administered to the patient. In other aspects of the invention, ~~buproprion~~ bupropion and one or more SNRI are administered to the patient. Yet other aspects of the invention provide for the administration of compositions comprising one or more SNRI to the patient. Additionally, compositions comprising ~~buproprion~~ bupropion and/or SNRI can be administered before, during, and/or after a particular medical procedure. In various aspects of the invention, the compositions used in this method of the subject invention can exclude polypeptides and/or individual amino acids.

Stressful situations are well known to evoke subtle psychophysical changes in both speech and language performance, even in individuals who usually function in the normal cognitive range.

Under certain stressful circumstances persons may experience changes in voice intensity and quality, reductions in speech fluency, difficulty word finding, increased mental slowness, verbal confusion, over use of filled pauses (Phillips GM, Sokoloff KA, 1979). In addition, the use of recreational substances (drugs) to ameliorate these responses often results in associated negative side effects. Thus, the subject invention provides methods of methods of: 1) reducing the incidence of; 2) treating; 3) preventing; or 4) ameliorating cognitive dysfunction that is associated with, or arises from, a stressful situation comprising the administration of ~~buproprion~~ bupropion and/or one or more SNRI to the individual. Compositions comprising ~~buproprion~~ bupropion and/or one or more SNRI can be administered before the stressful situation arises or during the course of the stressful situation. In various aspects of the invention, the compositions used in this method of the subject invention can exclude polypeptides and/or individual amino acids.

There is also a need for a method to optimize cognitive function for individuals who test in the normal cognitive range, but under various circumstances, could benefit from optimized cognitive function. Examples of such a scenario include: individuals taking exams, servicemen and officers in the Armed Services during exercises or armed conflict, students, athletes during sporting events, and individuals in various work-settings. Compositions comprising ~~buproprion~~ bupropion and/or one or more SNRI can be administered to these individuals as needed, before, or during activities that require optimized cognitive function. In various aspects of the invention, the compositions used in this method of the subject invention can exclude polypeptides and/or individual amino acids.

Please substitute the following paragraphs on page 6, beginning at line 16 through to page 7, line 3:

Compositions comprising ~~buproprion~~ bupropion and/or one or more SNRI can be administered at dosages that range from 1 mg to 1000 mg per day and by various routes of administration known to those skilled in the art. Other aspects of the invention provide fixed dosages of ~~buproprion~~ bupropion and/or one or more SNRI that range from 5-500 mg per day, 8-100 mg per day, 50-500 mg per day. Yet other embodiments provide for fixed dosages of SNRI and/or ~~buproprion~~ bupropion that range from 2.5-50 mg/day. Additional dosages of SNRI and ~~buproprion~~ bupropion suitable for use in the subject invention can obtained from readily obtainable sources,

such as the Physicians Desk Reference or by assessing a patient at various dosages of SNRI and/or ~~buproprion~~ bupropion.

Still other embodimcnts of the subject invention vary the dosage of the ~~buproprion~~ bupropion and/or SNRI containing compositions daily. For example, a certain dose of a SNRI composition (optionally containing ~~buproprion~~ bupropion in addition to one or more SNRI) can be administered on a first day followed by a higher or lower dose of a SNRI composition comprising one or more SNRI and, optionally ~~buproprion~~ bupropion, on a subsequent day. The subsequent day can be the next day or, alternatively, the higher or lower dose of compositions comprising one or more SNRI and, optionally, ~~buproprion~~ bupropion, can be administered one or more days after the administration of the first dose. The desired dosage of ~~buproprion~~ bupropion and/or one or more SNRI can be administered as a single dose or as multiple doses. Compositions can be administered via injection, orally, via suppository, topically, or parenterally.

Please substitute the following paragraph on page 15, beginning at line 3:

Many medications, herbal remedies and procedures have side affects that contribute to cognitive dysfunction. Because of these side effects patients may choose to discontinue medication or treatment (such as ECT) which has a detrimental effect on treatment. Currently, there are no medications approved for helping to alleviate these symptoms. The invention describes a novel treatment for individuals who experience various side effects of cognitive dysfunction. The invention additionally describes how these medications may enhance cognitive function in individuals with normal cognitive functioning who might benefit from this type of enhancement. The subject invention further provides materials and methods for the treatment, prevention, or ameliorate medication-inducecl cognitive dysfunction comprising the administration of medications or compositions comprising at least one selective norepinephrine reuptake inhibitors (SNRI) and/or ~~buproprion~~ bupropion.